REMARKS

Claim Status

Claims 1 – 20 are pending in the application.

Claims 1-13, 19 and 20 have been rejected under 35 USC 102(e) as being anticipated by Creigh et al (US Patent 5,956,348).

Claims 14, 16, and 17 have been rejected under 35 USC 103(a) as being unpatentable over Creigh in view of Bottorff et al (US Publishing 2001.0014104 A1).

Claims 15 and 18 are allowed.

Examiner's Advisory Action

This Preliminary Amendment together with the Request for Continued Examination (RCE) has been filed in response to Examiner's Advisory Action dated Sept. 21, 2005.

Examiner's Advisory Action comments stated that applicant's After Final arguments to distinguish over the Creigh reference relied on features that are not recited in the rejected claim(s).

Applicants have reviewed the After Final arguments and the claimed features that distinguish our claim(s) over the Creigh reference and found a distinguishing feature - our definition of what a "gap" is - that was not recited in the independent claims 1, 8, 14, 17, 19, and 20. Applicants have also made corrections to the reference to "first" and "second" data streams in the arguments for independent expansion claims 8, 17, and 20. Finally, applicants have reviewed and more clearly presented the arguments for all of independent claims 1, 8, 14, 17, 19, and 20.

Independent compression claims 1, 14, and 19 have been amended to recite that "the gap alone or the gap and data packet both including non-unique,

invariant content." This is described in our specification at page 5, lines 15 –17. In contrast, Creigh's "gap" as shown in Fig. 7 and described at col. 5, lines 29-35, is a "space between the data units 46," that includes no data symbols or characters.

Independent expansion claims 8, 17, and 20 have been amended to recite that a gap has "zero length or non-unique, invariant content." Our "gap" is described in our specification at page 5, lines 11-13, as having zero length or containing non-unique, invariant content (hereinafter also referred to as I2 characters). Thus our gap is defined in an unconventional manner as having either "zero length" or having finite length and containing "non-unique, invariant content." In contrast, Creigh's "gap" is described in a more conventional manner, i.e., as having a finite time interval and hence does not have "zero" length as may our gap. Additionally, Creigh's "gap" is also described as having no characters or symbols contained therein in contrast to our gap, which if it has finite length has contains non-unique, invariant content. Thus clearly, Creigh's gap is not defined the same as our gap.

Creigh's "gap" is shown in Fig. 7 and described at col. 5, lines 29-35, as a "space between the data units 46," that is, it is a finite time interval where no data symbols or characters are located. Thus, Creigh's gap (which is of finite length and contains no characters) is totally different from our definition of a gap as now more clearly recited in our claims as having "zero length" or including "non-unique, invariant content."

From the above discussion, our "gap" definition is clearly distinguishable over Creigh "gap" and, hence, our independent claims 1, 8, 14, 17, 19, and 20 are now more clearly distinguishable over Creigh. As will be discussed in the remaining sections of this document, this difference in the "gap" definition alone or together with the additional differences presented in the following responses to specific claim rejections (in the following paragraphs) should now more clearly distinguish our independent claims 1, 8, 14, 17, 19, and 20 over Creigh under 35

USC 102(e) and over any combination of Creigh and Bottorff under 35 USC 103(a).

Rejections under 35 USC 102(e)

Claims 1-13, 19 and 20 have been rejected under 35 USC 102(e) as being anticipated by Creigh et al (US Patent 5,956,348).

Regarding compression apparatus Claims 1-7

Note, that in the following discussion, line references to claim language will use the line numbers of the above amended set of claims.

The present invention is directed to a data stream compression apparatus (claim 1, preamble) that compresses a higher line rate signal (claim 1, line 3 - first data stream) for transport as a lower line rate signal (claim 1, lines 5,6 - second data stream). Data compression is accomplished by first identifying non-unique, invariant content of the first data stream using pre-knowledge of the type of data entities in the first data stream (claim 1, lines 9-12) and then removing some or all of the non-unique, invariant content from the data entities of the first data stream to thereby generate a reduced size second data stream that can be transported at the reduced second line rate (claim 1, lines 15-18). Thus, our data stream compression apparatus only removes content (non-unique, invariant content) and never first adds content that is later removed as in Creigh.

Creigh is directed to an apparatus for reconstructing data frames transferred through an Asynchronous Transfer Mode (ATM) system (see Title and Field of Invention section), but never describes or suggests that the apparatus can perform data compression. Rather than compress data entities, Creigh first expands data entities by filling in time gaps with special symbols to create a "stretched frame." (col. 2, lines 26-31) The special symbols are then removed at a destination system (col. 2, lines 42-44). Thus Creigh's overall teaching is an

apparatus that first adds special symbols (Fig. 7, 8) and then removes those special symbols (Fig. 9) to reconstruct the original frame data. Hence for the above reason, Creigh does not do data stream compression as recited in our claim 1.

The Examiner's rejection states that Creigh's Fig. 9 anticipates our data compression apparatus recited in our claim 1. For the following additional reasons the invention recited in our claim 1 does not do the same function in the same way and does not produce the same results as that shown and described for Creigh's Fig. 9.

To facilitate the comparison between our claim 1 and Creigh's Fig. 9, we assume (as has Examiner) that our first data stream refers to Creigh's "stretched" LAN input frame 64 and our second data stream refers to the data frame shown at the output of Creigh's register 70. With reference to our data stream processing element (claim 1, lines 3-7), each of our data entities of our first stream of data entities include a data packet and a gap (see 108 and 109 of our Fig. 1) the gap alone or the gap and the data packet both include non-unique, invariant content (see specification at page 5, lines 11-17). Thus our "gap," as defined in claim 1, lines 4-5 includes non-unique, invariant content and, hence, is not the same as Creigh's "gap," which is a time interval with no data symbols or characters therein.

This is shown in Creigh's Fig. 4, where the segmenting of a single LAN frame 24 produces a signal train 26 of one or more consecutive cells (col. 4, lines 28-35). In Creigh, after the signal train 26 passes through an ATM network (28 of Fig. 6) a "gap" 32 would appear between the cells (col. 4, lines 64-67). In Fig. 7, this "gap" is shown by a space between the data units 46 and described to be a time interval that has no characters or symbols contained therein. In Creigh's Fig. 7 Frame Stuffing Register 44 fills the gaps with "stretch symbols" as shown by the cross-hatched region of 50 and described at col. 5, lines 29-41. Thus, in

Creigh, the continuous stream 50 includes multiple data packets and at least one "stretch symbol" packet.

A second operational difference over Creigh is that our claim 1 describes a second data stream that operates at a second line rate that is <u>less than</u> the first line rate of the first data stream (claim 1, lines 5-6). In Creigh, there is <u>no</u> description that the <u>second data rate</u> out of register 70 is to be <u>less than</u> the <u>first data rate</u> of the first data stream 64 of Fig. 9. In Fig. 9, when one compares the size of the individual data entities of the input data stream 64 against those of the output data stream from unit 70, they are the <u>same size</u> indicating that the output data rate is the <u>same</u> as the input data rate. Additionally in Creigh, if we assume that the output data rate is <u>less</u> than the input data rate, then a buffer (like FIFO 104 of our Fig. 1) would be needed to store the accumulating data (since output rate is less than input rate) to insure that no data is lost. Since Creigh does <u>not</u> include such a buffer, his second data rate can <u>not</u> be said to operate at <u>less than</u> the first line rate, as recited in claim 1, lines 5-6.

A third operational difference is that our I2 characters (non-unique, invariant content) are identified using <u>pre-knowledge</u> of the <u>type</u> of data entities in the first data stream (claim 1, lines 10-12). In comparison, Creigh's "stretch symbol" is <u>merely unique symbols</u> (col. 6, lines 23-24) that are <u>not selected dependent</u> on the <u>type</u> of data packets in the first data stream (64 of Fig. 9).

A fourth operational difference is that our I2 characters (non-unique, invariant content) are removed "from a data packet or gap of one or more data entities of said first stream" (claim 1, lines15-17). In comparison, Creigh does <u>not</u> detect or <u>alter the data packets</u> of 64 of Fig. 9, but merely detects (Stretch Symbol Detector 68) and <u>removes</u> the <u>"stretch symbol" entities</u> (the cross-hatched region of 64 of Fig. 9) using a store-and-forward type Reconstructed Frame Register 70. This aspect of Creigh is described at col. 6, lines 32-37.

In summary, even if one would assume that Creigh's Fig. 9 could be interpreted as performing a compression function, the operational way in which Creigh performs that function is significantly different than what is recited in our claim 1. These significant differences were enumerated above as the four operational differences. Thus, since Creigh does not perform the same function in the same manner as what is recited in claim 1, Creigh does not anticipate claim 1 under 35 USC 102(e). Moreover, Creigh does not hint at nor suggest or otherwise make obvious to a person skilled in the art, under 35 USC 103, how to adapt Creigh to perform a compression function using the operational features recited in claim 1.

As discussed above, since independent claim 1 should now be allowable over Creigh under 35 USC 102(e) and 103, so should its dependent claims 2-7 be allowable for the same reasons as independent claim 1.

Regarding compression method Claim 19

Independent compression method claim 19 has been rejected under 35 USC 102(e) as being anticipated by Creigh.

As discussed above with regard to claim 1, Creigh's overall teaching is to a method that first adds special symbols (Fig. 7, 8) and then removes those special symbols (Fig. 9) to reconstruct the original frame data. Hence, Creigh method does not do data stream compression as recited in our claim 19 preamble.

Additionally, in the first step of claim 19, lines 4-5, the first data stream includes data entities each including a data packet and a gap. In our first data stream all data entities contain a data packet, whereas in Creigh the first data stream (64 of Fig.9) includes entities that are either data packets or "stretch symbols" (the cross-hatched entity that is a non-data packet). This difference was discussed previously as "operational difference one" in distinguishing claim 1 over Creigh. As previously discussed with regard to claim 1, Creigh does not

process data entities that each includes a data packet and a gap. Thus, Creigh does not perform this feature of claim 19, lines 4-5.

In the identifying step of claim 19, lines 7-9, we use pre-knowledge of the type of data entities in the first data stream. In comparison, Creigh's "stretch symbol" is merely a unique symbol (col. 6, lines 23-24) that is not dependent on the type of data packets in the first data stream (64 of Fig. 9). This feature is distinguishable over Creigh for the reasoning discussed previously as "operational difference three" in distinguishing claim 1 over Creigh,

In the removing step of claim 19, lines 11-14, we remove the non-unique, invariant content from a data packet or gap. In comparison, Creigh does not touch the data packets of 64 of Fig. 9, but merely detects (Stretch Symbol Detector 68) and removes the "stretch symbol" entity (the cross-hatched region of 64 of Fig. 9). This difference over Creigh was discussed previously as "operational difference four" in distinguishing claim 1 over Creigh.

For the above-recited operational differences, Creigh performs a function that is significantly different than what is recited in our claim 19. Thus since Creigh does not perform the same function in the same manner as what is recited in claim 19, Creigh does not anticipate claim 19 under 35 USC 102(e). Moreover, Creigh does not hint at nor suggest or otherwise make obvious to a person skilled in the art, under 35 USC 103, how to perform the different operational features recited in of our claim 19. Thus, claim 19 should now be allowable over Creigh under 35 USC 102(e) and 103(a).

Regarding expansion apparatus Claims 8-13

Independent data stream expansion apparatus claim 8 has been rejected under 35 USC 102(e) as being anticipated by Creigh.

As a first operational difference over Creigh, consider the data stream processing element of claim 8, lines 3-6, where our second data stream is "continuous" and includes data entities each including a data packet and a gap, our gap having zero length or non-unique, invariant content. As shown in Fig. 1B, our data stream expansion apparatus receives the second continuous data stream 110 and expands it into the first continuous data stream 106. Each of the data entities of our first and second stream of data entities includes a data packet and a gap (see 108/109 and 112/113 of our Fig. 1B). Since our "gap," as defined in claim 8, lines 5-6 has either zero length or includes non-unique, invariant content, our first and second data stream are still both continuous.

In comparison, Creigh's "gap" is a finite time interval never contains data symbols or characters as opposed to our gap that may contain non-unique, invariant content. Thus Creigh's data stream 46 of Fig. 7 is not continuous since it contains "gaps" that are time intervals that do not contain symbols. Hence as shown in Creigh's Fig. 7, Creigh's apparatus converts (or expands) non-continuous data stream 46 into a continuous data stream 50. Thus, since Creigh converts non-continuous data stream (46 of Fig. 7) to a continuous data stream (50 of Fig. 7), it operates differently from our expander apparatus that converts our continuous second data stream (110 of our Fig. 1B) into a continuous first data stream (106 of our Fig. 1B). Thus, Creigh does not teach this type of operation on our second data steam as recited in claim 8, lines 3-4.

A second operational difference is that our claim 8, lines 5-6, describes a first data stream that operates at a first line rate that is greater than the second line rate of the second data stream. In Creigh, there is no description that the first data rate out of Frame Stuffing Register 44 is greater than the second data rate of the second data stream 46 of Fig. 7. In Fig. 7, when one compares the size of the individual data entities of the input data stream 46 against those of the output from Frame Stuffing Register 44, they are the same indicating that the output data rate is the same as the input data rate. Additionally, the data stream rates of

Creigh's Fig. 9 Stretch Removal Logic apparatus has to be compatible with his Stretch Logic unit Fig. 7 to work properly. As discussed previously as a "second operational difference" of our claim 1 over Creigh's Fig. 9 Stretch Removal Logic apparatus, if the output data rate 50 was faster than the input data rate 46, then a buffer (like FIFO 104 of our Fig. 1) would be needed to store the accumulating data to insure that no data is lost. Absence such a buffer, Creigh's second data rate cannot be said to operate at less than the first line rate. Thus, Creigh's first line rate is not greater than the second line rate as recited in claim 8, lines 5-6.

As a third distinction, our claim 8, lines 15-17 recites that our non-unique, invariant content (Creigh's "stretch symbol") is "added to a data packet or gap of one or more data entities" of said second data stream to generate the first data stream. As previously discussed both our data packet and our "gap" (if it is not of zero length) include non-unique, invariant content (I2 characters) already. Thus in contrast to Creigh, who adds "stretch symbols" in the time interval or "gap" where there was a space or absence of symbols (see space in 46 of Fig. 7), we add our non-unique, invariant content to a data packet or to our "gap." Since our "gap" is either zero length or includes I2 characters it is not the same as Creigh's "gap" that is a finite time interval with no characters therein. Thus, Creigh does not teach our technique for adding non-unique, invariant content to a data packet or a gap as recited in claim 8, lines 15-17.

For the above three discussed distinctions, Creigh does not perform the same function in the same manner as what is recited in claim 8. Thus, Creigh does not anticipate claim 8 under 35 USC 102(e). Moreover, Creigh does not hint at nor suggest or otherwise make obvious to a person skilled in the art, under 35 USC 103, how to perform the different operational features recited in of our claim 8. As discussed above, since independent claim 8 should now be allowable over Creigh under 35 USC 102(e) and 103, so should its dependent claims 9-13 be allowable for the same reasons as independent claim 8.

Regarding expansion method Claim 20

Independent method claim 20 has been rejected under 35 USC 102(e) as being anticipated by Creigh.

As a first operational difference over Creigh, consider the first step of claim 20, lines 4-5 where the continuous second data stream includes data entities each including a data packet and a gap, the gap having zero length or non-unique, invariant content. As shown in Fig. 1B, our data stream expansion apparatus receives the second continuous data stream 110 and expands it into the first continuous data stream 106. Each of the data entities of our first and second stream of data entities includes a data packet and a gap (see 108/109 and 112/113 of our Fig. 1B). Since our "gap," as defined in claim 20, lines 5-6 has either zero length or includes non-unique, invariant content, both our first and second data stream are continuous.

In comparison, Creigh's "gap" is a finite time interval never contains data symbols or characters as opposed to our gap that may contain non-unique, invariant content. Thus Creigh's data stream 46 of Fig. 7 is not continuous since it contains "gaps" that are time intervals that do not contain symbols. Hence as shown in Creigh's Fig. 7, Creigh's apparatus converts (or expands) non-continuous data stream 46 into a continuous data stream 50. Thus, since Creigh converts non-continuous data stream (46 of Fig. 7) to a continuous data stream (50 of Fig. 7), it operates differently from our expander apparatus that converts our continuous second data stream (110 of our Fig. 1B) into a continuous first data stream (106 of our Fig. 1B). Thus, Creigh does not teach receiving a continuous second data steam as recited in claim 20, lines 4-6.

As a second distinction, our claim 20, lines 12-15 recites that the our non-unique, invariant content (Creigh's "stretch symbol") are "added to a data packet or gap of one or more data entities." As previously discussed both our data packet and our "gap" include characters already. Thus, in contrast to Creigh who adds

"stretch symbol" where there was a space or absence of symbols (see space in 46 of Fig. 7), we add our non-unique, invariant content to a data packet or our "gap" (recall our gap includes symbols already). Thus, Creigh does not teach our technique for adding characters to a data packet or gap of one or more data entities as recited in 20, lines 11-14.

A second operational difference is that our claim 20, lines 14-15, describes generating a first data stream that operates at a first line rate that is greater than the second line rate of the second data stream. In Creigh, there is no description that the first data rate out of Frame Stuffing Register 44 is greater than the second data rate of the second data stream 46 of Fig. 7. In Fig. 7, when one compares the size of the individual data entities of the input data stream 46 against those of the output from Frame Stuffing Register 44, they are the same indicating that the output data rate is the same as the input data rate. Additionally, the data stream rates of Creigh's Fig. 9 Stretch Removal Logic apparatus has to be compatible with his Stretch Logic unit Fig. 7 to work properly. As discussed previously as a "second operational difference" of our claim 1 over Creigh's Fig. 9 Stretch Removal Logic apparatus, if the output data rate 50 was faster than the input data rate 46, then a buffer (like FIFO 104 of our Fig. 1) would be needed to store the accumulating data to insure that no data is lost. Absence such a buffer, Creigh's second data rate cannot be said to operate at less than the first line rate. Thus, Creigh's first line rate is not greater than the second line rate as recited in claim 8, lines 5-6.

For the above three discussed distinctions, Creigh does not perform the same function in the same manner as what is recited in claim 20. Thus, Creigh does not anticipate claim 20 under 35 USC 102(e). Moreover, Creigh does not hint at nor suggest or otherwise make obvious to a person skilled in the art, under 35 USC 103, how to perform the different operational features recited in of our claim 20. For the above reasons, independent claim 20 should now be allowable over Creigh under 35 USC 102(e) and 103.

Regarding claims 14, 16, and 17

Claims 14, 16, and 17 have been rejected under 35 USC 103(a) as being unpatentable over Creigh in view of Bottorff et al.

Claim 14 is directed to a "data compression multiplexer apparatus." One operational difference between our claim 14 and Creigh's Fig. 9 is that in our first data stream all data entities contain a data packet, whereas in Creigh the first data stream (64 of Fig.9) includes entities that are either data packets or "stretch symbols" (the cross-hatched entity that is a non-data packet). Thus, our first data stream recited in our claim 1, lines 3-4, is different from what is shown and described in Creigh's Fig. 9, element 64.

A second operational difference is that our claim 14, lines 7-8 describes a second data stream that operates at a second line rate that is less than the first line rate of the first data stream. In Creigh, there is no description that the second data rate out of register 70 is to be less than the first data rate of the first data stream 64 of Fig. 9. In Fig. 9, when one compares the size of the individual data entities of the input data stream 64 against those of the output data stream from unit 70, they are the same indicating that the output data rate is the same as the input data rate. If the output data rate were less than the input data rate, then a buffer (like FIFO 104 of our Fig. 1) would be needed to store the accumulating data to insure that no data is lost. Absence such a buffer, Creigh's second data rate can not be said to operate at less than the first line rate, as recited in claim 14, lines 7-8.

A third operational difference is that our I2 characters (non-unique, invariant content) are identified using pre-knowledge of the type of data entities in the first data stream (claim 14, lines 13-14). In comparison, Creigh's "stretch symbol" is merely unique symbols (col. 6, lines 23-24) that are not dependent on the type of data packets in the first data stream (64 of Fig. 9).

A fourth operational difference is that our I2 characters (non-unique, invariant content) are removed "from a data packet or gap of one or more data entities of said first stream" (claim 14, lines17-20). In comparison, Creigh does not touch the data packets of 64 of Fig. 9, but merely detects (Stretch Symbol Detector 68) and removes the "stretch symbol" entity (the cross-hatched region of 64 of Fig. 9) using a store-and-forward type Reconstructed Frame Register 70. This aspect of Creigh is described at col. 6, lines 32-37.

Thus, for the four operational distinctions noted above, Creigh does not hint at, suggest or otherwise make obvious to a person skilled in the art, under 35 USC 103, how to perform the four distinguishing operational features recited in claim 14.

The Bottorff publication is described by the Examiner as disclosing a data stream multiplexer to generate a multiplexed data stream. For the purposes of discussion we assume that Examiner interpretation is correct. However for the reasons discussed in our first amendment, in which we successfully distinguished claims 14 and 16 over Bottorff, Bottorff does not teach or suggest the four distinguishing operational features recited in claim 14 that are lacking in the Creigh teachings. Consequentially, Creigh in view of Bottorff would still not make obvious independent claim 14 under 35 USC 103. Consequently, claim 14 and its dependent claim 16 should be allowable over Creigh in view of Bottorff under 35 USC 103(a).

Claim 17 is directed to a "data expansion demultiplexer apparatus." Basically claim 17 is a "data expansion apparatus" of claim 8, which has an added demultiplexer capability. As discussed above with regard to claim 8, there were three distinguishing operational differences that distinguish claim 8 over Creigh. Claim 17 also recites these operational differences over Creigh.

As a first operational difference over Creigh, consider the data stream processing element of claim 17, lines 10-14, where the continuous second data

stream includes data entities each including a data packet and a gap. As shown in our data stream expansion apparatus of Fig. 1B, the second continuous data stream is shown by 110 and the first continuous data stream is shown by 106. Each of the data entities of our first and second stream of data entities includes a data packet and a gap (see 108/109 and 112/113 of our Fig. 1B). Our "gap" is recited in claim 17, line 12 and is described on page 5, lines 11-13, as having zero length or non-unique, invariant content (hereinafter I2 characters). Thus, our "gap" if it exists includes I2 characters and, hence, is not the same as Creigh's "gap," which is a time interval with an absence of symbols. Note that our second data stream 106 of Fig. 1B is continuous; it has no Creight-type gaps (i.e, absence of symbols) which are shown in Creigh's data stream 46 of Fig. 7. Rather our "gaps" (I2 characters) are part of the individual data entities (which includes a data packet and a gap). Thus, Creigh does not teach the operating on our type of continuous second data steam as recited in claim 17, lines 10-14.

A second operational difference is that our claim 17, lines 13-14, describes a first data stream that operates at a first line rate that is greater than the second line rate of the second data stream. In Creigh, there is no description that the first data rate out of Frame Stuffing Register 44 is greater than the second data rate of the second data stream 46 of Fig. 7. In Fig. 7, when one compares the size of the individual data entities of the input data stream 46 against those of the output from Frame Stuffing Register 44, they are the same indicating that the output data rate is the same as the input data rate. Additionally, the data stream rates of Creigh's Fig. 9 Stretch Removal Logic apparatus has to be compatible with his Stretch Logic unit Fig. 7 to work properly. As discussed previously as a second operational difference of our claim 1 over Creigh's Fig. 9 Stretch Removal Logic apparatus, if the output data rate 50 was faster than the input data rate 46, then a buffer (like FIFO 104 of our Fig. 1) would be needed to store the accumulating data to insure that no data is lost. Absence such a buffer, Creigh's second data rate

cannot be said to operate at less than the first line rate. Thus, the first line rate is not greater than the second line rate as recited in claim 17, lines 11-12.

As a third distinction, our claim 17, lines 22-25 recites that the our non-unique, invariant content (Creigh's "stretch symbol") are "added to a data packet or gap of one or more data entities." As previously discussed both our data packet and our "gap" include characters already. Thus, in contrast to Creigh who adds "stretch symbol" where there was a space or absence of symbols (see space in 46 of Fig. 7), we add our non-unique, invariant content to a data packet or our "gap" (recall our gap includes symbols already). Thus, Creigh does not teach our technique for adding characters to existing data entities as recited in claim 17, lines 22-25.

For the above three discussed distinctions, Creigh does not perform the same function in the same manner as what is recited in claim 17. Thus, Creigh does not anticipate claim 17 under 35 USC 102(e) and does not hint at nor suggest or otherwise make obvious to a person skilled in the art, under 35 USC 103, how to perform the different operational features recited in of our claim 17.

The Bottorff publication is described by the Examiner as disclosing a data stream demultiplexer to generate a demultiplexed data stream. For the purposes of discussion we assume that Examiner interpretation is correct. However for the reasons discussed in our first amendment, in which we successfully distinguished claim 17 over Bottorff, Bottorff does not teach or suggest the above-described three distinguishing operational features recited in claim 17 that are lacking in the Creigh teachings. Consequentially, Creigh in view of Bottorff would not make obvious independent claim 17 under 35 USC 103.

Allowable subject matter

Applicants are appreciative that Examiner has allowed claims 15 and 18.

SUMMARY

In summary for the above reasons, independent claims 1, 8, 14, 15, and 17 - 20 and their respective dependent claims 2-7, 9-13 and 16 should now be allowable under 35 USC 102(e) and 35 USC 103(a) over Creigh and allowable under 35 USC 103(a) over Creigh in view of Bottorff. Applicant respectfully requested that all of the claims 1 –20 be allowed.

Applicant's attorney would welcome a call from the Examiner to resolve any remaining issue.

Respectfully,

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